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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/059,728	01/29/2002	Avi Kopelman	72932	5365

7590

09/12/2003

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EXAMINER

WILSON, JOHN J

ART UNIT

PAPER NUMBER

3732

DATE MAILED: 09/12/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/059,728

Applicant(s)

KOPELMAN ET AL.

Examiner

John J. Wilson

Art Unit

3732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 January 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) ✓
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) ✓
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In line 8, "(placed on said teeth)" is unclear as to if the language is being claimed or not.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 6, 8-12, 14-16 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Chapoulaud et al (2002/0025503). Chapoulaud shows obtaining a three dimensional virtual representation of teeth, 33 and Fig. 1, with brackets placed on the teeth, Figs. 5E-5G, and from several viewpoints as shown, displays of the teeth with brackets as shown in the screen shots. The screen shots inherently show three

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dimensional qualities. As to claim 2, the shown viewpoints, top of Figs 5E and 5F, are inherently capable of being a viewpoint from which a bracket can be applied. As to claim 8, see paragraph [0017].

Claims 1, 2, 9, 11 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Doyle et al (5879158). Doyle shows obtaining a virtual image 14 with brackets 29-31 on a display. The shown viewpoint is inherently a defined viewpoint. The shown drawings, and disclosure of the relative movement of teeth, brackets and arch wires, inherently shows and teaches three dimensional qualities.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chapoulaud et al (2002/0025503) in view of Hamilton (6413083). Chapoulaud shows the elements as described above, however, does not show the use of a printer. Hamilton teaches using a printer 108. It would be obvious to one of ordinary skill in the art to modify Chapoulaud to include printing information as is well known and shown and suggested by Hamilton in order to make use of known ways of communicating in the art.

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Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chapoulaud et al (2002/0025503) in view of Sachdera et al (6350120). Chapoulaud shows the elements as described above, however, does not show the use of a database of virtual brackets. Sachdera teaches using a library of virtual brackets, column 6, lines 25-31. It would be obvious to one of ordinary skill in the art to modify Chapoulaud to include using a database of virtual brackets as shown by Sachdera in order to better simulate the brackets intended to be placed on the teeth.

Claims 2-4, 6, 14-16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doyle et al (5879158). There are many viewpoints that are capable of functioning as a viewpoint from which a bracket may be applied, and as such, the shown viewpoints of Doyle can obviously be viewpoints from which a bracket may be applied. As to claim 3, Doyle shows several viewpoints, Figs. 1 and 2. As to claim 4, Doyle shows displaying sets of teeth as shown in the drawings.

Claims 7 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doyle et al (5879158) in view of Hamilton (6413083). Doyle shows the elements as described above, however, does not show the use of a printer. Hamilton teaches using a printer 108. It would be obvious to one of ordinary skill in the art to modify Doyle to include printing information as is well known and shown and suggested by Hamilton in order to make use of known ways of communicating in the art.

Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doyle et al (5879158) in view of Chishti et al (6227850). Doyle teaches the elements as described above, however, does not show transmitting data to a remote location. Chishti teaches using a remote location, column 14, lines 35-45. It would be obvious to one of ordinary skill in the art to modify Doyle to include using a remote location as shown by Chishti in order to more conveniently provide orthodontic planning.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Doyle et al (5879158) in view of Sachdera et al (6350120). Doyle shows the elements as described above, however, does not show the use of a database of virtual brackets. Sachdera teaches using a library of virtual brackets, column 6, lines 25-31. It would be obvious to one of ordinary skill in the art to modify Doyle to include using a database of virtual brackets as shown by Sachdera in order to better simulate the brackets intended to be placed on the teeth.

Claims 1-6, 9, 11, 12 and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taub et al (WO 99/16380) in view of Jordan et al (6152731). Taub shows a virtual image of teeth, at least one having a bracket thereon, Fig. 4B. Taub does not show displaying in three dimensions. Jordan teaches displaying in three dimensions, column 8, lines 50-53. It would be obvious to one of ordinary skill in the art to modify Taub to include displaying in three dimensions in order to better view the teeth

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and orthodontic elements. To use different viewpoints is an obvious matter of choice in views used to one of ordinary skill in the art. To use different sets of teeth is an obvious matter of choice in the teeth it is desired to work on to the skilled artisan. As to claim 5, Taub is used to help place brackets, to display in order of bracket placement would be obvious to one of ordinary skill in the art.

Claims 7 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taub et al (WO 99/16380) in view of Jordan et al (6152731) and further in view of Hamilton (6413083). The above combination shows the elements as described above, however, does not show the use of a printer. Hamilton teaches using a printer 108. It would be obvious to one of ordinary skill in the art to modify the above combination to include printing information as is well known and shown and suggested by Hamilton in order to make use of known ways of communicating in the art.

Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taub et al (WO 99/16380) in view of Jordan et al (6152731), and further in view of Chishti et al (6227850). The above combination teaches the elements as described above, however, does not show transmitting data to a remote location. Chishti teaches using a remote location, column 14, lines 35-45. It would be obvious to one of ordinary skill in the art to modify the above combination to include using a remote location as shown by Chishti in order to more conveniently provide orthodontic planning.

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Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taub et al (WO 99/16380) in view of Jordan et al (6152731), and further in view of Sachdera et al (6350120). The above combination shows the elements as described above, however, does not show the use of a database of virtual brackets. Sachdera teaches using a library of virtual brackets, column 6, lines 25-31. It would be obvious to one of ordinary skill in the art to modify the above combination to include using a database of virtual brackets as shown by Sachdera in order to better simulate the brackets intended to be placed on the teeth.

### ***Drawings***

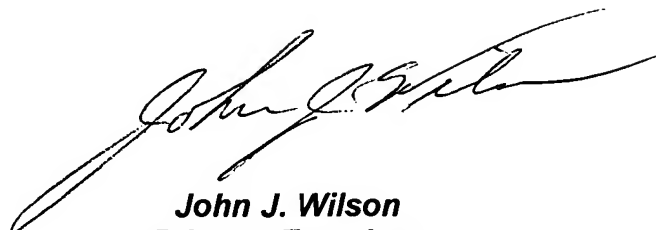
The drawings filed January 29, 2002 is objected to by the examiner because the copies of the photographs are dark and features cannot be discerned and there is unblocked text, see Fig. 7B.



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***Conclusion***

Any inquiry concerning this communication should be directed to John Wilson at telephone number (703) 308-2699.

A handwritten signature in black ink, appearing to read "John J. Wilson", written in a cursive style.

**John J. Wilson  
Primary Examiner  
Art Unit 3732**

jjw

8/29/03

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